

THE IBIS.

ELEVENTH SERIES.

VOL. I. No. 1. JANUARY 1919.

I.—*Notes on Collections of Birds in the British Museum, from Ecuador, Peru, Bolivia, and Argentina.* Part I. TINAMIDÆ—RALLIDÆ. By CHARLES CHUBB, F.Z.S., M.B.O.U.

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(Plate I. and 2 Text-figures.)

THE following notes are based, chiefly, on a collection made by the late Perry O. Simons in the Andean regions of Ecuador, Peru, Bolivia, and Argentina from the latter part of 1898 to November 1901, at varying altitudes up to 5000 metres.

The collection, which consists of about three thousand specimens, contains many new forms and records of species that were not previously known to occur in the localities visited, thus adding new facts to the distribution of the species.

The expedition was a private undertaking initiated and financed by Mr. Oldfield Thomas, F.R.S., of the Department of Zoology, British Museum (Natural History), whose enthusiasm is so well known among mammalogists and who has done so much to advance that branch of Zoological Science. His object was to obtain a collection, as complete

as possible, of the mammals of the northern portion of the South American Andes, but, with his usual generosity, he allowed Simons to collect birds also during his journey. The specimens thus collected by Simons were acquired by the British Museum and form a particularly welcome addition to the Bird-Room, which had previously been poor in specimens from the Andean regions. Ornithologists who make a special study of the avifauna of South America will, therefore, be grateful to Mr. Oldfield Thomas for his patriotic action in thus enriching the National Collection.

There are, however, two other collections included in these notes,—one from the Andes of Ecuador, made by Mr. Walter Goodfellow and presented to the British Museum by Mr. E. J. Brook; and the other from Trujillo in north-west Peru, which was formed and presented by the late Lord Brabourne.

Such notes as were made by the collectors are placed in inverted commas “ ”, and their names in brackets ().

The references to literature, in addition to those to the original description, are restricted, as much as possible, to works and papers dealing with the Andean region, others being referred to only when there has been a change in the nomenclature.

A list of the localities where specimens were collected by Simons is given below, arranged in chronological order from his diaries. The names of the Provinces have been added where possible in order to assist in locating the exact situation of the places where the collections were made, which are often not to be found in the most recent maps.

ECUADOR.

1	Nov. 1898.	Puna Island.	Prov. Guayas.
4-11	” ’98.	Zenda.	” ”
18-22	” ’98.	Chougou.	” ”
25	” ’98.	Guayaquil.	” ”
9	” ’98.	Colta Lake.	” ”
12-25	Dec. ’98.	Sinche, Guaranda.	” ”
30	” ’98.	Riobamba.	Prov. Chimborazo.
16	Jan. 1899.	Guallabamba.	” ”

	Feb. 1899.	Mirador, Rio Tapo.		Prov. Azuay.
1	Mar. '99.	Talahua, 4000 metres.		" "
10	" '99.	Povenir.		Prov. Bolivar.
27	" '99.	Riobamba.		Prov. Chimborazo.
5-18	Apr. '99.	Cañar.		Prov. Cañar.
23	" '99.	Cuenca, 2200 metres.		Prov. Azuay.
13	May '99.	Curube, 2500 metres.		" "
16	" '99.	Mararuria, Paramo, 3000 metres.		
16	" '99.	Ona, Guishapa, 2000 metres.		Prov. Azuay.
1	June '99.	Loja, 1800 metres.		" "
12	" '99.	Hacienda de Curtincapa, Zaruma, 1000 metres.		Prov. El Oro.
12	" '99.	Curtincapa.		" "
20	" '99.	Guallavo, 1000 metres.		" "
8	July '99.	Cangunana, 1500 metres.		" "
9	" '99.	Casango.		" "
10	" '99.	Guachanama, 2000 metres.		" "
11	" '99.	Dormugillo.		" "
12	" '99.	Sapatillo.		" "

PERU.

18	July 1899.	Sulana,	60 metres.	Prov. Piura.
20	" '99.	Famarindo.		" "
21	" '99.	Omotape,	50 "	" "
26	" '99.	Piura,	50 "	" "
4	Aug. '99.	Catacaos,	50 "	" "
22	" '99.	Chuloconuo,	80 "	" "
24	" '99.	Marropon,	142 "	" "
4	Sept. '99.	Eten.		Prov. Lambeyque.
29	Oct. '99.	Talon,	80 "	Prov. Cajamarca.
5	Nov. '99.	San Pablo,	1800 "	" "
13-18	" '99.	Cajamarca,	2800 "	" "
24	" '99.	San Martos,	200 "	Prov. Libertad.
25	" '99.	La Grama,	2000 "	" "
28	" '99.	Huamachuca,	3500 "	" "
1	Dec. '99.	Hungas Marcos Paramo,	3500 "	" "
2	" '99.	Tulpo,	3000 "	" "
	" '99.	Mollapata Paramo,	2500 "	" "
4	" '99.	Coreuges Paramo,	3300 "	" "
7	" '99.	Uramarca nr. Pal- lasca, Rio Ushpe,	1200 "	" "
9-14	" '99.	Caraz,	2200 "	Prov. Ancachs.
15	" '99.	Yogay,	2400 "	" "

17	Dec. 1899.	Carohas,	2600 metres.	Prov. Ancachs.
19	"	'99. Recuay,	3400 "	" "
20	"	'99. Tecapampa,	3600 "	" "
20	"	'99. Puno Paramo, 16° S. 70° W.,	4000 "	" "
22	"	'99. Marca,	3000 "	" "
24	"	'99. Shigriay Tambo,	1600 "	" "
30	"	'99. Chancey near the sea.		Prov. Lima.
10	Jan. 1900.	Callao,	8 metres.	" "
16	"	'00. San Lorenzo Island, off Callao.		" "
29-31	"	'00. {	Chosica, 850 metres.	" "
2, 3	Feb.	'00. }		
7-12	"	'00. Surco,	2050 "	" "
17-21	"	'00. San Mateo,	3200 "	" "
24-26	"	'00. Gálera,	4800 "	Prov. Junin.
1	Mar.	'00. Oroya,	4200 "	" "
2	"	'00. Tarma,	3500 "	" "
3	"	'00. Ancobamba,	3500 "	" "
4	"	'00. Hatol Huacapista.		" "
6	"	'00. San Ramon,	1000 "	" "
7	"	'00. La Merced,	1000 "	" "
9-30	"	'00. { "The Camp,"	800 "	" "
5-14	Apr.	'00. { Rio Perene,		
19	"	'00. Puntoyacu,	1200 "	" "
23	"	'00. Huacapistana,	2000 "	" "
17-21	May	'00. Rio Tambo,	20 "	" "
28-31	"	'00. Arequipa,	2424 "	Prov. Arequipa.
4-9	June	'00. Sumbay,	4275 "	" "
11	"	'00. Diuia, Sumbay, Colca,	4500 "	" "
14	"	'00. Caylloma,	4300 "	" "
25	"	'00. Tirapata, Titicaca Basin,	3600 "	Prov. Puno.
30	"	'00. Crucero on the pass between Puno and the Upper Inambari,	4500 metres.	" "
3	July	'00. Limbane,	3300 "	" "
4-6	"	'00. Rio Limbane,	2000 "	" "
8	"	'00. Segravio,	1500 "	" "
9	"	'00. Huroya,	1000 "	" "
9	"	'00. Rio Inambari,	1000 "	" "
10-24	"	'00. Oroya,	1500 "	" "
26	"	'00. Limbane,	3400 "	" "
28	"	'00. Aricoma Lake,	5000 "	" "
30	"	'00. Segravio,	4500 "	" "

BOLIVIA.

13	Aug.	1900.	La Paz,	4000 metres.	Prov. La Paz.
16-17	"	'00.	Sorato,	3000-4000 "	" "
19	"	'00.	Oyane,	3500 "	" "
23, 24	"	'00.	Mapiri,	1600 "	" "
25	"	'00.	Bella Vista.		" "
26	"	'00.	San Carlos,	1200 "	" "
27	"	'00.	Sarampioni,	800 "	" "
29	"	'00.	San Ernesto.		
14	Sept.	'00.			" "
15	"	'00.	Chimate,	700 "	" "
17	Oct.	'00.	San Ernesto,	1000 "	" "
20-23	"	'00.	Sorato,	3500-3800 "	" "
9	Nov.	'00.	Palca, 18 miles E. of La Paz.		" "
10	"	'00.	Yanacachi, 67° 5' W. 16° S.,	3500 metres.	" "
13, 14	"	'00.	Rio Tamampaya,	1500 "	" "
20-24	"	'00.	Astillera,	2700 "	" "
17-31	Dec.	'00.	Chulumani,	2000 "	" "
12	Jan.	1901.			
10-29	"	'01.	Chocachaca, Rio Tamampaya,	"	" "
4	Feb.	'01.	Tacama,	2000 "	" "
14-20	"	'01.	Astillera,	2700 "	" "
24	"	'01.	Achecachi, Titicaca.		Prov. Cochabamba.
9	Mar.	'01.	Cosmini,	4300 "	" "
15	"	'01.	Caracollo,	4000 "	" "
22	"	'01.	Tapacari,	3000 "	" "
1-6	Apr.	'01.	Paratani,	2300 "	" "
18-24	"	'01.	Cochabamba,	2500 "	" "
5	May	'01.	Choro,	3500 "	" "
17	"	'01.	Langunillas,	3500 "	" "
18-27	"	'01.	Charuplaya,	1300 "	Prov. La Paz.
28	"	to	Rio Blanco.		
4	July	'01.			" "
8	"	'01.	Langunillas,	3800 "	" "
13	"	'01.	Choquecamate,	4000 "	Prov. Cochabamba.
15	"	'01.	San Carlos,	1600 "	Prov. La Paz.
22-25	"	'01.	Choro.		Prov. Cochabamba.
29	"	'01.	Choquecamate,	4000 "	" "
5-24	Aug.	'01.	Oruro,	3694 "	Prov. Oruro.
28	"	'01.	Livichuco, 66° 5' W. 19° S.,	4500 "	Prov. Potosi.
3-12	Sept.	'01.	Sucre, 65° W. 19° S.,	2844 "	Prov. Chiquisaca.
18-21	"	'01.	El Cabrada, Posta, 65° 5' W. 19° 5' S.,	3500 "	" "

6		Mr. C. Chubb on <i>Birds from</i>	[Ibis,
27	Sept. 1901.	Potosi, 4300 metres.	Prov. Potosi.
10	Oct. '01.	Challapata.	Prov. Oruro.
17	" '01.	Pampa Aullagas, 67° W. 19° 3' S., 3700 "	" "
1	Nov. '01.	Uyuni, 67° W. 20° 5' S., 3660 "	Prov. Potosi.

ARGENTINA.

15	Nov. 1901.	Punta de Vacas, 2500 metres.	Prov. Mendoza.
18	" '01.	Palmira, 900 "	" "
27	" '01.	Cruz del Eje, 600 "	Prov. Cordoba.

Systematic List.

Family TINAMIDÆ.

Tinamus tao weddelli.

Tinamus weddelli Bonap. Tabl. Parall. ordre Gallin. (excerpt pp. 12, 15, 1856): Tipuani Valley, Bolivia.

No. 2432. ♂. San Ernesto, Upper Beni River, Bolivia, 1000 metres, 29 Sept. 1900. Native name "Caloma." Culmen 37 mm., wing 280, tail 101, tarsus 84. "Found in woods, feeding on nuts and fruit."

No. 2434. ♀ imm. San Ernesto, 1000 metres, 29 Sept. 1900. Culmen 40 mm., wing 260, tail 104, tarsus 90.

These individuals differ from specimens in the British Museum from Venezuela in the coarse markings on the upper parts and the more slaty-grey hue. The female, which is immature, is spotted with white on the wing-coverts and scapulars.

They also differ in the colour of the flanks and thighs—the male being uniformly barred on these parts, while the female is mottled.

These two specimens were collected at San Ernesto, near Mapiri on the upper Beni River, which cannot be far from the locality in which the type of *T. weddelli* was obtained, as Bonaparte gives the locality: the virgin forest in the Tipuani Valley in the Province of La Paz, Bolivia. I have not, hitherto, seen any specimens of this group from Bolivia; and although the present examples are very close to *T. tao*

kleei, I am inclined to use Bonaparte's name, which was founded on a Bolivian bird, rather than extend the range of *T. t. kleei* with insufficient material to verify it.

***Nothocercus julius salvadorii*.**

Nothocercus salvadorii Chubb, Bull. Brit. Orn. Club, xxxiii. 20 Jan. 1914, p. 95 : Ecuador.

Tinamus julius Sclater, P. Z. S. 1858, p. 76 : Rio Napo, not Rio Negro as given by Salvadori & Festa.

Nothocercus julius Salvad. & Festa, Boll. Mus. Torino, xv. 1899, No. 357, p. 51 : Puno, Ecuador.

An adult male from the west side of Pichincha, western Ecuador, 11,000 feet, Feb. 1915. "Iris brownish red; feet dull burnt-sienna; bill dark brown, lower mandible paler" (*W. Goodfellow*).

This specimen, which was collected by W. Goodfellow and presented to the British Museum by Mr. E. J. Brook, is much more olive than *N. j. salvadorii* on the upper parts, but still retains the wide dark bars as in the type. It differs, however, in having the mantle finely freckled as in *N. julius*, in consequence of which I am compelled to reduce its status to that of a subspecies. On the under surface it differs from *N. julius* in the more extensive white throat, darker freckled olive throat-band, and the paler rufous on the breast.

Total length 305 mm., culmen 35, wing 192, tail 64, tarsus 61.

***Crypturus obsoletus punensis*.**

Crypturus obsoletus punensis Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 30.

Crypturus obsoletus (nec Temm.) Sclater & Salvin, P. Z. S. 1879, p. 642 : Tilotilo.

Adult male. This form differs from *C. o. obsoletus* in its smaller size and the deeper and richer coloration of the entire plumage. "Iris salmon-red; bill and feet dark" (*P. O. Simons*).

Total length 240 mm., culmen 25, wing 151, tail 40, tarsus 46.

No. 2186. ♂. Oroya, Puno, Peru, 1000 metres, 15 July, 1900. Native name "Perdiz." "In woods."

No. 2551. ♂. Chulumani, Bolivia, 1700 metres, 26 Dec. 1900. Native name "Coloma." "In bush by creek."

No. 2646. ♀. Chulumani, 2200 metres, 16 Jan. 1901. Native name "Paloma Coloma." "In bush on the ground."

I have not seen an example of *C. o. obsoletus* from Paraguay, which is the type locality, but have compared Simons' birds with specimens in the British Museum from the Rio Parana, São Paulo, and Rio de Janeiro, all of which agree in being larger in size and paler in coloration.

In addition to the type from Oroya, Department of Puno, southern Peru, and the male and female from Chulumani in Bolivia, collected by P. O. Simons, there is an adult bird in the Museum collected by the late Clarence Buckley at Tilotilo in the Province Yungas, Bolivia, which is identically the same as those in the Simons collection.

***Crypturus garleppi affinis*, subsp. nov.**

Crypturus garleppi Berlepsch, Ber. Allg. Deutschl. Orn. Ges., Dec. 1892, p. 13: Santa Cruz de la Sierra, Bolivia.

No. 2678. ♀. Rio Blanca, Bolivia, 1000 metres, 26 June, 1901. Type of the subspecies.

According to Count Salvadori's description and remarks on *C. garleppi* in the Catalogue of the Birds in the British Museum, vol. xxvii. 1895, p. 53, it would appear that the species was closely allied to *C. atricapillus*, but I do not consider that the specimen in the Simons collection is at all nearly allied to that species. I am, therefore, giving a description of it.

Adult female. Middle of the crown of the head chestnut-brown with blackish bars and edgings to the feathers, becoming paler on the lores, sides of face, and hind-neck, where the dark markings are much more minute; lower hind-neck and mantle dusky rufous-brown barred and mottled with blackish and washed with hoary-grey; upper back and scapulars ochreous brown narrowly barred with

black which becomes much broader on the remainder of the back and wings, where the buff, or fulvous bars and edgings are very narrow compared with the black interspaces; bastard-wing, primary-coverts, and primary quills greyish brown, darker on the outer webs, and buff mottlings at the tips of the last which cross the entire feather on the innermost secondaries; tail blackish banded with rufous-buff, the bands rather broader than those on the back; chin and throat pale rufous, becoming darker on the lower throat where the feathers are minutely barred with blackish; fore-neck slate-grey with rufous-chestnut edges to some of the feathers, this colour increasing in extent on the breast where it occupies nearly the whole of the feather; paler again on the abdomen, lower flanks, and under tail-coverts, where the feathers are buff, or fulvous barred or mottled with blackish; under wing-coverts silvery grey or white, the marginal ones dark brown or sooty-black; under surface of quills pale brown, broadly margined with grey on the inner edges.

Total length 330 mm., culmen 32, wing 177, tail 52, tarsus 55.

Crypturus transfasciatus.

Crypturus transfasciatus Selater & Salvin, P. Z. S. 1878, p. 141, pl. xiii.: Santa Rosa, Ecuador; Salvadori & Festa, Boll. Mus. Torino, xv. 1899, No. 357, p. 51: Guayaquil.

No. 173. ♂. Guayaquil, Ecuador, 1 Dec. 1898. "Found in thick jungle."

There is a specimen of this species in the British Museum from the Balzar Mountains, Ecuador, collected by Illingworth, which Count Salvadori regarded as identical with *C. transfasciatus*. It differs, however, from the one in the Simons collection in being almost uniform creamy-white on the under surface, while the barrings on the upper back and mantle are similar to those of the type. The following are the measurements of the three individual birds mentioned above:—

No. 173 Simons collection: Culmen 27 mm., wing 160, tail 47, tarsus 54.

C. transfasciatus (type): "Rostrum a rictu 1.5, alæ 6.2, caudæ 2.1, tarsi 2.9."

The specimen from Balzar Mts. has the following measurements:—Culmen 29 mm., wing 142, tail 43, tarsus 47.

Crypturellus parvirostris.

Crypturus parvirostris Wagler, Syst. Av. 1827, *Crypturus* 13: Brazil.

Crypturellus parvirostris Brabourne & Chubb, Ann. & Mag. Nat. Hist. (8) xiv. Oct. 1914, p. 322.

No. 2677, ♂ imm. Rio Solocame, Bolivia, 1400 metres, 24 January, 1901. Native name "Peso." "On open hillside. Feeding on seeds."

This specimen, which is sexed as male by Simons, differs from the adult birds, both on the upper and under surface, in being darker and in having a patch of white feathers with black tips on each side of the forehead; this is no doubt the remains of youth.

Nothoprocta cinerascens.

Nothura cinerascens Burmeister, J. f. O. 1860, p. 259: Tucuman.

Nothoprocta cinerascens Selater & Hudson, Argent. Orn. ii. 1889, p. 210.

Two males and three females in fully adult plumage, from El Carrizal, Sierra de Cordoba, Argentina, collected by Mr. Robin Kemp, at an altitude of 1000 metres, during November and December, 1915.

I have compared the specimens mentioned above with others in the National Collection, and find them to be not quite so white on the abdomen, but otherwise identical both in colour of plumage and measurement of the wings.

Nothoprocta pentlandii.

Rhynchotus pentlandii Gray, List B. Brit. Mus., Gallinæ, 1867, p. 103: Andes of Bolivia.

Nothoprocta pentlandi Salvadori, Cat. B. Brit. Mus. xxvii. 1895, p. 555, pl. xvi.

No. 2647. ♂. Chulumani, Bolivia, 2000 metres, 16 Jan. 1901. Native names, "Guayco, Perdiz-Pesa, or Incocal."

No. 2818. ♀. Paratani, Bolivia, 2500 metres, 4 April, 1901.

Nos. 3086 ♀, 3087 ♂. El Cabrada, 3500 metres, 18 Sept. 1901. "On hillsides in grass, feeding on grain and insects."

The male, No. 2647, and female, No. 2818, agree in colour of plumage very well with the type in the British Museum, but Nos. 3086 and 3087 differ, especially the male, in being perceptibly paler both on the upper and under surface. They are also slightly larger in wing-measurements [♂ 140 mm., ♀ 145, as against ♂ 138, ♀ 142]. I do not attach any importance to these measurements, however, as the wing-measurement of the type is 148 mm. and it is a much darker bird. The difference of altitude, moreover, may account for the pale coloration of the El Cabrada specimens, which approach *N. coquimbica* in the colour of the back and the pale under surface.

Nothoprocta pentlandii simonsi.

Nothoprocta pentlandii simonsi Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 30.

This subspecies is somewhat intermediate between *N. curvirostris peruana* and *N. pentlandii pentlandii*. It approaches the head and back of the former and the grey fore-neck, with buffy-white central spots, and secondary quills of the latter.

The type, No. 1414 ♀, which is in the British Museum, was collected at San Pablo, Cajamarca, Peru, at an altitude of 1500 metres, on 5 November, 1899.

Nothoprocta curvirostris.

Nothoprocta curvirostris Sclater & Salvin, Nomencl. Av. Neotr. 1873, pp. 153, 163 : Calacali, Ecuador; Tacz. Orn. Pér. iii. 1886, p. 306 : Salvad. & Festa, Boll. Mus. Torino, xv. 1899, No. 357, p. 52 : Ecuador.

The two adult females, and a young female which still has down attached to some of its feathers, collected at

Gorazon, western Ecuador, at an altitude of 13,000 feet, differ from the type in having the dark pattern of the feathers on the upper surface everywhere deeper black, which stands out in bold relief on comparison. This difference may be due, however, to the higher altitude, as I notice that the type was obtained by Fraser at Calacali at an altitude of 8000 feet, and the co-type, also collected by Fraser, came from Puellaro, at an altitude of 6500 feet. The rufous and black markings on the wings are also more conspicuous in the birds from the higher altitude.

Nestling with the feathers on the wings, upper back, and sides of the breast black, fringed laterally with white, and barred and tipped with ochreous brown on the back, scapulars, tail, and innermost secondaries; upper wing-coverts edged with rufous: flight-quills brown barred, or mottled with rufous, or buffy-white; sides of the breast black with whitish margins to the feathers and slightly tinged with rufous; the feathers on the sides of the body are pale rufous marked with dark brown near the tips; head and underparts covered with down which is for the most part drab-white tinged with rufous and, on the head and hind-neck, profusely marked with black or dark brown; the down on the hind-neck has long black hair-like tips. Iris brown; feet flesh-colour; bill, upper mandible brown, lower mandible pale yellow at the base. This specimen, with two others, was collected at Pichincha, western Ecuador, at an altitude of 1300 feet, in February 1915 by W. Goodfellow, and presented to the British Museum by Mr. E. J. Brook.

Nothoprocta ornata.

Rhynchotus ornatus Gray, List of the Birds in the British Museum, Gallinæ, 1867, p. 102: Bolivia.

Nothoprocta ornata Salvadori, Cat. B. Brit. Mus. xxvii. 1895, p. 557, pl. xvii.

No. 3175. ♂. Lake Pampa Aullagas, Bolivia. 3900 metres, 17 Oct. 1901.

Simons states that he found this bird "in sandy bushy places."

This specimen is very similar to Gray's type which is in the British Museum. The following measurements refer to the bird collected by Simons:—Total length 350 mm., exposed portion of culmen 28, wing 194, tail 58, tarsus 43. I may remark that plate xvii. in the Catalogue of the Birds in the British Museum is not a correct representation of the type of this species.

Nothura maculosa.

Tinamus maculosa Temm. Fig. et Gall. iii. 1815, pp. 557, 748: Paraguay.

Nothura maculosa Sclater & Hudson, Argent. Orn. ii. 1889, p. 211.

Seven males and eleven females of this species were collected by Mr. Robin Kemp at Papin, Bonifacio, western Argentina, during the months of April, May, June, July, August, and September, 1916.

In addition to the eighteen specimens that Mr. Kemp collected, there are twenty-two dated individuals in the National Museum, which together represent a series of forty specimens, collected during the months of December, January, February, March, April, May, June, July, August, and September, and which include all the plumages from the nestling to that of the adult. On viewing this series I was at first inclined to think that there was more than one form as there are two distinct phases, one rufous and the other grey. On closer observation, however, I find the birds of the rufous or ochreous-buff phase to be immature, and those of the darker and more grey phase to be the fully adult. I have measured the wings of seven adult males and seven adult females, and find the average to be—males 131 mm. and females 138.

Nothura darwini salvadorii.

Nothura salvadorii Hartert, Nov. Zool. xvi. 1909, p. 266: Arenal, Prov. de Salta; Brabourne & Chubb, B. S. Amer. i. 1912, p. 7, no. 64.

Nos. 4863 ♂, 4894 ♀. El Carrizal, Sierra de Cordoba, Argentina, 1000 metres, December 1915.

These two birds, which were collected by Mr. Robin Kemp, differ from the type of *N. darwini* in being rather darker on the upper parts, the submarginal longitudinal white lines more pronounced, the under wing-coverts deeper fawn-colour, and the somewhat larger wing-measurements—male 132 mm., female 143.

There is a specimen from Cosquin, Cordoba, in the British Museum which also belongs to this subspecies, collected by E. W. White on 28 June, 1882.

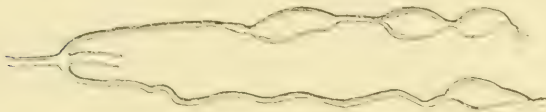
Calopezus elegans formosus.

Calopezus formosus Lillo, Revista da letras y ciencias sociales, No. 13. 1905, p. 72: Santiago; Brabourne & Chubb, B. S. Amer. i. 1912, p. 7, no. 71.

No. 5003. ♀. Laguna Alsina, Bonifacio de Cordoba, 10 June, 1916.

“Cæca—100 mm. and 140 mm. Large, conical, and sacculated” (*R. Kemp*).

Text-fig. 1.



The cæca of *Calopezus elegans formosus* from a sketch on Mr. Kemp's label.

The specimen sent by Mr. Kemp was collected in the neighbourhood whence Lillo described *C. formosus*, and agrees fairly well with the description and the figures given by Dabbene & Lillo in the An. Mus. Nac. Hist. Nat. Buenos Aires, xxiv. Lam. xi. fig. 1 ♂.

There is an adult female in the Rothschild Museum at Tring which was collected at Rioja in western Argentina (*cf.* Hartert & Venturi, *Nov. Zool.* xvi. 1916, p. 267), and which answers very well to the description of *C. intermedius* Dabbene & Lillo in the *An. Mus. Nac. Hist. Nat. Buenos Aires*, xxiv. 1913, p. 194, Lam. xii.

Tinamotis pentlandi.

Tinamotis pentlandi Vigors, *P. Z. S.* 1836, p. 79: Andes; *Tacz. Orn. Pér.* iii. 1886, p. 310: Junin.

No. 1851. ♀. Galera, Junin, Peru, 4800 metres, 26 Feb. 1900.

No. 2095. Sumbay, Peru, 4000 metres, 7 June, 1900.

Native name "Francolin." Simon states that this bird was found on the ground in open rocky places.

I have compared these two specimens with the series in the British Museum, and find them to be similar both in colour of plumage and wing-measurements.

Family CRACIDÆ.

Mitu mitu.

Crax mitu Linn. *Syst. Nat.* 12th ed. i. 1766, p. 270: Brazil.

Mitu mitu Brabourne & Chubb, *B. S. Amer.* i. 1912, p. 9, no. 84.

No. 2342. ♂. San Ernesto, Bolivia, 1000 metres, 2 September, 1900. Native name "Buiche." "Iris brown; bill and feet red" (*P. O. Simons*). "Found in woods."

I have compared this specimen with others in the British Museum, and find it to be very similar both in colour of plumage and in measurements. Wing 405 mm., tail 320.

Penelope brooki.

Penelope brooki Chubb, *Bull. Brit. Orn. Club*, xxxviii. 30 Oct. 1917, p. 5.

Penelope montagnii Ogilvie-Grant, *Cat. B. Brit. Mus.* xxii. 1893, p. 492 (part, specimens *f, g, h, i*).

Adult male. Allied to *P. montagnii* Bonap. which was described from Colombia, but differing from that species in having the upper surface for the most part dark oil-green instead of bronze-brown, the lower back, rump, and upper tail-coverts brown, with dark rufous edgings to the feathers instead of uniform rufous-chestnut, chin and throat black instead of grey, the breast darker and the pale margins to the feathers more contrasting, and the abdomen dusky brown with dark rufous mottlings, instead of rufous brown with dark mottlings.

"Bill deep yellow-chrome; feet red; iris brown; face and throat red" (*W. Goodfellow*).

Total length 512 mm., exposed culmen 33, wing 234, tail 192, tarsus 61.

The type was collected at Baeza, eastern Ecuador, 6000 feet, by W. Goodfellow in April 1914, and presented to the British Museum by Mr. E. J. Brook, in whose honour the species is named.

There are four other specimens from Ecuador in the National Collection which support the characters given in the above description.

Penelope æquatorialis.

Penelope æquatorialis Salvad. & Festa, Boll. Mus. Torino, xv. No. 368, 1900, p. 38: Foreste del Rio Peripa, W. Ecuador; Brabourne & Chubb, B. S. Amer. i. 1912, p. 10, no. 97.

Penelope cristata (nec Linn) Berl. & Tacz. P. Z. S. 1883, p. 736: Chimbo; Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1892, p. 498 (part) (spec. n, Balzar Mts.); Hartert, Nov. Zool. v. 1898, p. 504: Paramba.

The bird collected by Simons belongs to the form which occurs in western Ecuador, Colombia, and Central America, and for a long time has been known as *P. cristata* Linn. This name, however, cannot stand as it was founded by Linné on Maregrave's Jacupema (Hist. Nat. Bras. p. 198, cum fig. 1618: District of Pernambuco). It must therefore

have been a Brazilian bird. Edwards, in his 'Natural History of Birds,' i. 1743, p. 13, refers to it as the "Quan or Guan, so called in the West Indies." He gives a description and a coloured plate, but neither is applicable to any species known in Brazil at the present time. On the plate is inscribed "the Brassilian Jacupema of Marggrave." He also states—"I saw one of these birds at Captain Chandler's at Stepney, who brought it with him from some one of the Sugar Islands in the West Indies, I have forgot which; but I suppose it may be found in most of them. The Brasilian Jacupema of Maregrave, I believe, is the same with this bird, though his description differs something from mine." It may be mentioned, however, that none of this family is known to occur in any of the West India Islands.

Ray refers to the species as "*Phasianus Brasiliensis Jacupema dictus Maregr.*" (*cf.* Synopsis Methodica Avium & Piscium, 1713, p. 56). A description is also given by Ray which is similar to that of Maregrave's.

The bird is also referred to by Brisson under the title of "*Le Dindon du Bresil*" (*cf.* Orn. i. 1760, p. 162), which is also based on Maregrave's figure. He appears to have seen a specimen, as he gives a description.

It was on the works of these four authors that Linné founded the title *Meleagris cristata*, but while it is uncertain as to which of the Brazilian species it was intended to apply, it is perfectly certain that it could not have been the Colombian or Ecuadorean bird.

The synonym quoted by Mr. Ogilvie-Grant, Cat. B. Brit. Mus. xxii. p. 498—" *Penelope purpurascens* Lawr. Ann. Lyc. N.Y. viii. p. 12 (U.S. Colombia)" was intended to have read Lawr. (*nee* Wagler)—*P. purpurascens* Wagl. being the Mexican form.

The only available name, therefore, for this species is *P. aequatorialis* Salvadori & Festa. I cannot, however, accept the species as those authors separated it, for after a comparison of specimens from Central America with others from Colombia and Ecuador, I have failed to observe any

differences, and the characters given for its distinction are certainly not borne out by birds from the localities cited.

The habitat of the species therefore, as at present known, is Ecuador, Colombia, and Central America, from Panama to southern Nicaragua.

I notice that Dr. Hartert (Nov. Zool. v. p. 504) mentions that the wings of the two birds obtained at Paramba, Ecuador, measured 340–355 mm., and that the bird from Central America is larger, the head paler, and the pale margins to the feathers broader. I have measured the wings of four individuals from Central America and find the average to be 361 mm., and two from Colombia, one from Merida, Venezuela, and one from Ecuador, which average 355 mm., so that the difference is but slight. As regards the colour of the head, I should say that the southern bird is the darker of the two, but the difference is not great, and I fail to see that the pale margins to the feathers of the northern bird are any broader than in the southern species. I do not altogether disparage the suggestion that these may be subspecific forms, but the small amount of material to hand is not sufficient to prove it.

Penelope jacquáçu jacquáçu

Penelope jacquáçu Spix, Av. Bras. ii. 1825, p. 52, pl. lxxviii.: "in sylvis fluminis Solimoens"; Brabourne & Chubb, B. S. Amer. i. 1912, p. 10, no. 98 (part).

Penelope boliviana (nec Reichenb.) Tacz. Orn. Pér. iii. 1886, p. 268; Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 499 (part): Sarayacu, Ecuador, Yquitos, Yurimaguas, and Rio Solimoens, East Peru.

No. 1966. Rio Perene, Junin, Peru, 800 metres, 24 March, 1900. Native name "Pavo." "Iris coffee-brown; skin round the eye blue-black; throat-patch red and bill red; feet black" (*P. O. Simons*).

The bird collected by Simons is very similar to others in the British Museum from Ecuador and Peru, among which there is an example from the Rio Solimoens, whence the original type of this species was obtained by Spix.

Penelope jacquáçu boliviana.

Penelope boliviana Reichenb. Syn. Av., Novit. xlv. 1851, pl. 271, figs. 2493-94: Bolivia; Ogilvie-Grant, Cat. B. Brit. Mus. xxii. p. 499 (specimen *g*); Allen, Bull. Amer. Mus. ii. 1890, p. 106: Lower Beni.

Penelope jacquáçu Brabourne & Chubb, B. S. Amer. i. 1912, p. 10, no. 98 (part).

When comparing the Simons bird, No. 1966 from Perene, with others from Bolivia, Peru, and Ecuador in the British Museum, I noticed that the Bolivian bird was darker in colour both on the upper and under surface as well as larger in wing and tail measurements, particularly the latter. I found, too, that the darker coloration was depicted by Reichenbach in his original figures. Wing 322 mm., tail 340.

I propose, therefore, that this form be recognized as a subspecies under the name *Penelope jacquáçu boliviana*.

Habitat. Bolivia.

Ortalis guttata.

Penelope guttata Spix, Av. Bras. ii. 1825, p. 55, tab. lxiii.: "ad flumen Solimoens."

Ortalida guttata Tacz. Orn. Pér. iii. 1886, p. 278.

Ortalis guttata Brabourne & Chubb, B. S. Amer. i. 1912, p. 12, no. 112.

No. 1874. Adult. San Ramon, Junin, Peru, 1000 metres, 6 March, 1900. Native name "Gallina del monte." "Found in brush."

No. 1932. Adult. Rio Perene, Junin, Peru, 800 metres, 17 March, 1900. "Found in thick wood."

With a series of fourteen specimens, including the two in the Simons collection, from localities in the following states—Colombia, Ecuador, Peru, and Bolivia, I notice a considerable amount of variation, particularly in regard to the colour on the rump. In several, the feathers are short and fluffy and of a deep rust-brown or chestnut in colour, while there are others which do not show either of these characters but have normal feathers and are olive-brown like the back.

The colour of the back varies, too, from oil-green to rich brown. On the under surface, the abdomen varies from grey to pale brown and the under tail-coverts from ferruginous to deep chestnut.

I may mention, however, that the differences cited above do not show any partiality for locality or sex; it may be age of course, but I am unable to distinguish any signs by which to judge on this suggestion.

There are only six individuals sexed—three males and three females. The average wing-measurement of the males is 198 mm. and the females 194; while the average tail-measurement in the male is 215 mm. and the female 207. The average measurement of the wing in the whole series is 197 mm. and the tail 213.

Pipile cumanensis.

Crax cumanensis Jacquin, Beytr. 1784, p. 25, tab. 10 : Orinoco.

Pipile cumanensis Tacz. Orn. Pér. iii. 1886, p. 276; Allen, Bull. Amer. Mus. ii. 1890, p. 107: Falls of the Madeira.

No. 1906. Adult. Rio Perene, Junin, Peru, 800 metres, 12 March, 1900. Native name "Pavo." "Found in woods."

No. 2921. Adult. Charuplaya, Bolivia, 1350 metres, 5 June, 1901. Native name "Chui Pavo." "Iris red; feet red; bill black; facial skin blue-white" (*P. O. Simons*).

With a series of thirteen specimens from the following localities—British Guiana, Colombia, Ecuador, Peru, Bolivia, and Paraguay, it would appear by the different phases of plumage that there were more than one species. On close observation, however, aided by the few specimens that were sexed, it was noticed that the phases represented male and female—the steel-blue phase being the male, and the oil-green phase the female.

The white fringes to the feathers on the upper and under surface appear to be a sign of immaturity.

The female in the Simons collection, No. 2921, is almost

uniform oil-green above and below, while the male is steel-blue with a large amount of white edgings to the feathers on the breast, upper wing-coverts, and scapulars.

The black shaft-lines to the feathers of the otherwise white crest are very conspicuous in the Bolivian bird 2921, an adult from Peru (Gray's type of *P. jacquinii*), and the bird from Paraguay. The remainder of the series have an almost uniform cream-white crest.

I have measured the wings and tails of the entire series, and find that the southern birds have a slightly larger average measurement in both male and female.

Aburria aburri.

Penelope aburri Less. Dict. Sci. Nat. lix. 1829, p. 191 : Bogota.

Aburria carunculata Reichenb.; Salvad. & Festa, Boll. Mus. Torino, xv. 1899, p. 39: Bassa Valle del Rio Zamora.

Aburria aburri Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 520: Chiguinda.

No. 506. Mirador, Bañas, Ecuador, 1500 metres. Native name "Pavo." "Found in woods."

a. ♂. Baeza, Eastern Ecuador, 6000 feet, April 1914. "Bill brownish black, extreme tip yellowish, nostrils grey; feet yellow; iris blood-red, eyelids dull yellow; wattle clear yellow" (*W. Goodfellow*).

I have compared these examples with a series of nine other specimens in the National Collection from Colombia, Merida in western Venezuela, Ecuador, and Peru. In this series I notice that Colombian and Venezuelan birds show a good deal of oil-green colour in the plumage, while those from Ecuador and Peru have an inclination to steel-blue. This character may denote sexual difference however, as in the case of *Pipile cumanensis*, but the number of sexed specimens in this series are not sufficient to prove it. The measurements of the wings and tails of this series do not show any great variation.

Chamæpetes goudotii and allies.

With a series of sixteen specimens at my disposal it is quite obvious that there are at least three, if not four, subspecies; these divide into geographical races by difference of colour-plumage, and this is further supported in the series by the measurements. Thus in the neighbourhood of Bogota, which is the type-locality, the wing-measurement ranges from 236–250 mm., the tail 215–238, and the tarsus 57–61: in Antioquia, which is much farther north in Colombia, the measurements are—wing 254–273 mm., tail 237–247, and tarsus 64–71; while in eastern Ecuador they are—wing 245–262 mm., tail 237–254, and tarsus 65–84; and two individuals from Peru have the wing 242–243 mm., tail 234–244, tarsus 79–80. The last two are sexed females, so that the males would probably be even larger. These forms may therefore be classed as follows:—

Chamæpetes goudotii goudotii. Hab. District of Bogota, Colombia.

Chamæpetes goudotii antioquiana. Hab. Antioquia, N. Colombia.

Chamæpetes goudotii tshudii. Hab. Central northern Peru and eastern Ecuador.

Chamæpetes goudotii goudotii.

Ortalida goudotii Less. Man. d'Orn. ii. 1828, p. 217: Santa Fé de Bogota.

Chamæpetes goudoti Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 521 (part).

Chamæpetes goudotii Brabourne & Chubb, B. S. Amer. i. 1912, p. 13, no. 122 (part).

There are four specimens in the British Museum from the type-locality, Bogota, which measure—wing 236–250 mm. and tail 215–238. It would appear therefore that this is the smallest form of the group.

***Chamæpetes goudotii antioquiana*, subsp. n.**

Chamæpetes goudoti Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 521 (part, specimens *f*, *g*, *h*).

Chamæpetes goudotii Brabourne & Chubb, B. S. Amer. i. 1912, p. 13, no. 122 (part).

This form differs from the Bogota bird in being rather darker in colour and larger in size. The average measurements of the four specimens from the Province of Antioquia are as follows: wing 254–273 mm. and tail 237–247.

Habitat. Antioquia Province, Colombia.

The type, which is in the British Museum, was collected by A. E. Pratt at Valdivia, Antioquia.

Chamæpetes goudotii tschudii.

Chamæpetes tschudii Taczanowski, Orn. Pérou, iii. 1886, p. 275: Moyobamba.

Chamæpetes rufiventris (nec Tschudi) Tacz. tom. cit. p. 273.

Chamæpetes goudoti Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 521 (part, specimens *m* & *n*).

Chamæpetes goudotii Brabourne & Chubb, B. S. Amer. i. 1912, p. 13, no. 122 (part).

a, b. ♂ ♂; *c.* ♀. Baeza, eastern Ecuador, 6000 ft., March and April, 1914. "Iris brown; face bright cobalt-blue; bill brown; feet red" (*W. Goodfellow*).

These three individuals, which are in very good condition, have the throat slightly tinged with brown. This may be, however, the last remains of immaturity.

The birds from Ecuador and northern Peru are rather paler on the under surface, and larger in wing- and tail-measurements than typical specimens of *C. g. goudotii* from Bogota. Wing 245–260 mm. and tail 234–251.

Penelope rufiventris described and figured by Tschudi is a big bird, as is shown by the measurements given by him. In his description he states that the face is red, and he further emphasized that character by illustrating it in his *Fauna Peruana*, pl. xxxi.

Taczanowski in his Orn. Pérou, iii. p. 273, described a blue-faced bird under the title of *Chamæpetes rufiventris*, remarking that the red-faced bird described and figured by Tschudi was erroneous. Taczanowski, *l. c.* p. 275, described as a new species *C. tschudii*, also a blue-faced bird, and

observed that Tschudi had mixed these two forms up in addition to the wrong coloration of the face.

Mr. Ogilvie-Grant, in the Catalogue of the Birds in the British Museum, xxii. p. 521, made all three synonymous with *C. goudotii*, describing them as variations due to age.

After reading Taczanowski's statements in reference to *C. rufiventris* (Tschudi), it appears doubtful as to whether it is a valid species or not, and must remain as such until there is sufficient material to reveal the facts. In the meantime Taczanowski's name, *C. tschudii*, must be used.

There is a specimen in the National Collection that Taczanowski examined when making the observations referred to above, which is almost identical with Tschudi's description and figure, save that it is said to have had a blue face, not red.

There is, however, a red-faced bird which was collected by Mr. W. Goodfellow at Mindo, western Ecuador, and which I have described as a new species by reason of its much smaller size and deeper coloration.

Chamæpetes fagani. (Plate I.)

Chamæpetes fagani Chubb, Bull. Brit. Orn. Club, xxxviii. 30 Oct. 1917, p. 4.

Adult female. General colour above, including the head, back, wings, and tail, dark bottle-green with bronzy reflections; the lesser upper wing-coverts have the margins slightly paler, the inner webs of the flight-quills darker and inclining to blackish, some of the long upper tail-coverts inclining to brown, as are also the tips of some of the tail-feathers; the sides of the hinder face dusky brown; the throat which is sparsely feathered is also dusky brown, the feathers have black shafts which terminate in hair-like tips; the fore-neck dark bottle-green with slightly paler margins to the feathers; the breast and abdomen chestnut, darker on the flanks and thighs and inclining to chocolate-brown on the under tail-coverts; the under wing-coverts bronze-green; under surface of flight-quills dusky brown with glossy reflections; the lower



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CHAMÆPETES FAGANI.

aspect of the tail bluish black tinged with rufous-brown on the apical portion where the shafts are dull coral-red.

"Bill dark brown; iris brown; skin of face and throat shrimp-red; feet red" (*W. Goodfellow*).

Total length 467 mm., exposed culmen 35, wing 220, tail 184, tarsus 61.

The type, which is in the British Museum, was collected by *W. Goodfellow* at Mindo, western Ecuador, at an altitude of 6000 ft., in January 1914, and presented to the National Collection by *Mr. E. J. Brook*.

This species is allied to *C. goudotii*, but is easily distinguished by its darker coloration and much smaller size.

An immature male of this species, that was collected at the same time as the type, is darker in the general coloration both above and below, as is usual with the male in this group. "Bill brown; face red; iris brown; feet red" (*W. Goodfellow*).

This bird is named in honour of *Mr. C. E. Fagan*, of the British Museum (Natural History).

FAMILY ODONTOPHORIDÆ.

Odontophorus guianensis rufinus.

Perdix rufina Spix, Av. Bras. ii. 1825, p. 60, tab. lxxvi. *b*: "in sylvis fl. Amazonum."

Odontophorus guianensis Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 432 (part, specimens *a, b, g, h*); Brabourne & Chubb, B. S. Amer. i. 1912, p. 13, no. 130 (part).

Although *Hellmayr*, in his revision of *Spix's* types (*Abh. math.-phys. Ak. Wiss. München*, xxii. 1906, p. 698), states that *Perdix rufina* Spix is *Tetrao guianensis* Gmelin, I am of opinion that it is a good subspecific form. There are four individuals in the British Museum which are almost identical with *Spix's* figure. Of the specimens referred to, one, a male, was collected on the Capim River by *A. R. Wallace*; another, which is a female, was obtained by *Natterer* at Barra do Rio Negro; and the other two have no exact locality stated, but I have no doubt that they came

from the same neighbourhood as the four birds are so much alike and contrast so vividly with *O. g. guianensis*. I propose, therefore, that Spix's name be resuscitated as a subspecies under the following title, *Odontophorus guianensis rufinus*, as mentioned above.

Habitat. Lower Amazons.

Odontophorus guianensis simonsi, subsp. n.

Odontophorus guianensis Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 433 (part, specimen *s*); Brabourne & Chubb, B. S. Amer. i. 1912, p. 13, no. 130 (part).

Adult male. Differs from *O. g. guianensis* in having the lower back and rump isabelline with scarcely any dark spots, instead of tawny brown profusely spotted with black, the fore-neck rufous instead of grey, and the abdomen and thighs darker.

Habitat. Bolivia.

The type, which is in the British Museum, was collected at San Ernesto, Mapiri, Bolivia, at an altitude of 1000 metres on 6 October, 1900, by the late P. O. Simons, in whose memory this subspecies is named.

The native name according to Simons is "Guaylgkopo."

There is a specimen in the British Museum from Guyo, Bolivia, collected by the late Clarence Buckley; though slightly immature it bears out the characters described above.

Odontophorus guianensis marmoratus.

Ortyx (Odontophorus) marmoratus Gould, P. Z. S. 1843, p. 107: Santa Fé de Bogota.

Odontophorus marmoratus Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 433 (part, specimens *h-q*).

This species is known chiefly by its darker under surface, its brown or whitish throat, and in having the sides of the face dull chestnut. Wing 158 mm., depth of bill 11.

Odontophorus guianensis panamensis, subsp. n.

Odontophorus marmoratus Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 433 (part, specimens *a-g*).

Adult male. Distinguished from *O. g. marmoratus* in being

smaller and in having the sides of the face bright rufous, instead of dull chestnut.

Total length 230 mm., exposed culmen 22, wing 149, tail 60, tarsus 44.

Adult female. Similar to the adult male. Wing 147 mm.

Habitat. Panama.

The male and female described were collected at Lion Hill, Panama, by J. McLeaman and are now in the British Museum, Salvin-Godman collection.

Odontophorus guianensis pachyrhynchus.

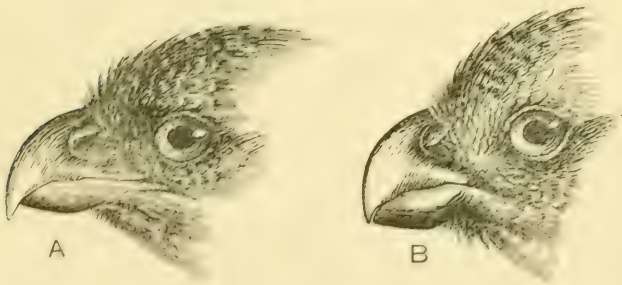
Odontophorus pachyrhynchus Tschudi, Fauna Peruana, 1846, p. 282: East side of the Andes in Peru; Tac. Orn. Pér. iii. 1886, p. 287: Monterico.

Odontophorus marmoratus Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 433 (part, specimen *r*).

This bird, which I propose to resuscitate as a subspecific form, is allied to *O. g. marmoratus* in the general colour of its plumage, but is easily recognized by the increased depth of its bill, which is 14 mm.

Habitat. Peru.

Text-figure 2.



Heads of:—

A. *Odontophorus guianensis guianensis.* B. *O. g. pachyrhynchus.*

Odontophorus guianensis buckleyi, subsp. n.

Odontophorus marmoratus Ogilvie-Grant, Cat. B. Brit. Mus. xxii. 1893, p. 433 (part, specimens *p, q*); Brabourne & Chubb, B. S. Amer. i. 1912, p. 13, no. 131 (part).

Adult presumed male. Allied to *O. g. pachyrhynchus*, but differing in having the rufous at the base of the bill, lores, cheeks, and chin much paler in colour, the lower back, rump, and upper tail-coverts darker, the under surface also darker ochreous brown, more narrowly barred and tinged with pale slate-grey, and rather smaller in size.

Total length 210 mm., exposed culmen 21, depth of bill 14, wing 143, tail (imperfect) 53, tarsus 45.

Adult presumed female. Similar to the presumed adult male, differing only in the almost entire absence of the rufous at the base of the bill, lores, cheeks, and chin. Wing 144 mm.

Habitat. Eastern Ecuador.

The male and female described were collected at Sarayacu in eastern Ecuador by the late Clarence Buckley, in whose memory this subspecies is named, and are now in the British Museum, Salvin-Godman collection.

Key to the Subspecies.

- A. Under surface for the greater part rufous or ochreous, not dusky brown profusely barred; chin and throat usually chestnut.
- a. Lower back and rump dark rufous-brown spotted with black *O. guianensis guianensis*.
- b. Lower back and rump paler and inclining to grey, also spotted with black *O. guianensis rufinus*, p. 25.
- c. Lower back and rump almost uniform isabelline, the black spots small and very few in number *O. guianensis simonsi*, p. 26.
- B. Under surface for the most part dusky brown profusely barred throughout; chin and throat usually brown or whitish.
- d. Depth of bill less than 13 mm.
- d'. Larger: wing more than 155 mm.; sides of face dull chestnut [p. 26. *O. guianensis marmoratus*,
- e'. Smaller: wing less than 155 mm.; sides of face bright rufous-chestnut [p. 26 *O. guianensis panamensis*,

e. Depth of bill more than 13 mm.

f'. Under surface paler and more broadly barred; rump and upper tail-coverts also paler; wing more than 145 mm.; tail more than 65 mm. [p. 27.
O. guianensis pachyrhynchus,

g'. Under surface darker and more narrowly barred; rump and upper tail-coverts darker; smaller, wing less than 145 mm., tail less than 65 mm. *O. guianensis buckleyi*, p. 27.

Odontophorus parambæ.

Odontophorus parambæ Rothschild, Bull. Brit. Orn. Club, vii. 1897, p. 6: Paramba, N. Ecuador; Hartert, Nov. Zool. v. 1898, p. 505, pl. iii. fig. 1.

Guelea, W. Ecuador, July 1914. "Iris chocolate, eyelids dull red; bill black; feet slate-grey" (*W. Goodfellow*). Total length 224 mm., exposed culmen 17, wing 130, tail 47, tarsus 41.

The bird collected by W. Goodfellow is smaller in measurement and paler in coloration, both above and below, than the specimen in the British Museum; there is also a slight suffusion of grey on the upper back and scapulars, and the specklings on the feathers are more minute and not so coarse as in the one in the British Museum, which was collected by Miketta at Paramba on the 12th of April, 1898. It may be observed, too, that Goodfellow gives the eyelids as dull red, whereas Dr. Hartert states that the skin round the eye is greenish grey in the type.

Family COLUMBIDÆ.

Columba albipennis.

Columba albipennis Selater, P. Z. S. 1876, p. 18: Pitumarca, Peru; Tacz. Orn. Pér. iii. 1886, p. 232; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 272, pl. viii.: Bolivia.

Nos. 2803, ♀; 2804, 2822, ♂. Paratani, Bolivia, 2800 metres, April 1901. Native name "Torcas." "Iris grey; bill black; feet purple" (*P. O. Simons*).

Simons states that he found this bird nesting in trees and that the stomach contained berries.

No. 3102 ♀. El Cabrada, Bolivia, 3600 metres, 19 Sept. 1901. "Iris cream-colour; feet purple; bill bluish black" (*P. O. Simons*).

I have compared these four examples with the type of the species, which is in the National Collection, and find them to be almost identical. No. 2804 is slightly darker on the under tail-coverts and not so vinous on the neck.

Columba speciosa.

Columba speciosa Gmel. Syst. Nat. i. 1789, p. 783: Cayenne; Tacz. Orn. Pér. iii. 1886, p. 231.

No. 1993. ♀ imm. Metrara, La Merced, Peru, 700 metres, 6 April, 1900. "Found in woods and feeds on palm-fruit" (*P. O. Simons*).

Although this species is fairly common over the greater part of South America, the National Collection did not, previously, possess a specimen from Peru. I notice that it is recorded from two localities, viz. Chayavetas, Chamicuros (*Bartlett*) and Amable Maria (*Jelski*) by Taczanowski.

The present example, which is an immature female, is similar to others in the British Museum from various localities.

Columba albilinea.

Columba albilinea Bonap. Consp. Av. ii. 1855, p. 51: New Grenada; Sel. P. Z. S. 1860, p. 72: Chillanes, Rio Chimbo Valley; Sel. & Salv. P. Z. S. 1879, p. 639: Ramosani, Bolivia; Berl. & Tacz. P. Z. S. 1884, p. 311: Bugnac; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 294: Sical, Ecuador; Salvad. & Festa, Boll. Mus. Tor. xv. No. 357, 1899, p. 34: Pun, La Concepcion, Nanegal, Ecuador.

Chlorænas albilinea Sel. P. Z. S. 1858, p. 556: Matos, Ecuador.

Nos. 415, 427. ♂ adult. Guallabamba, Riobamba, Ecuador, 3500 metres, 17, 18 Jan. 1899. Native name "Torcasa."

Nos. 2602, 2674. ♂ adult. Chulumani, Bolivia, 2200 metres, 5, 21 Jan. 1901. Native name "Palamo Senisa." "Iris pink; bill and feet yellow" (*P. O. Simons*).

No. 2857. ♂ adult. Choro, Cocapata, Bolivia, 3500 metres, 6 May, 1901. Native name "Torcas."

I have compared these five specimens with a series of eighteen other individuals, including the type, in the British Museum from British Guiana, Venezuela, Colombia, Ecuador, Peru, and Bolivia, and find the colour and the wing-measurements very similar throughout.

Columba plumbea plumbea.

Columba plumbea Vieill. N. Dict. d'Hist. Nat. xxvi. 1818, p. 358: Brazil (Delalande) = Rio Janeiro; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 323 (part, specimens *a-e*).

Columba infuscata Licht. Verz. Doubl. 1823, p. 66: Bahia.

Columba locutrix Wied, Reise nach Bras. ii. 1821, pp. 118, 213: Bahia.

The typical form is distinguished by having the head, hind-neck, and mantle dark purple tinged with hoary-grey; rump, upper tail-coverts, and tail purplish brown; chin and throat fawn-colour, with the remainder of the under surface plumbeous.

Total length 340 mm., exposed culmen 18, wing 185, tail 143, tarsus 22, middle toe and claw 39.

Columba plumbea baeri.

Columba plumbea baeri Hellmayr, Nov. Zool. xv. 1909, p. 91: Goyaz.

According to Hellmayr this form is allied to *C. plumbea*, but differs in being smaller in size, paler brown on the upper parts, and pale grey on the underparts, with scarcely any perceptible rosy tinge.

Wing 181-183 mm., tail 145-143, culmen 15.

Columba plumbea wallacei.

Columba plumbea wallacei Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 32.

Columba plumbea Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 323 (part, specimens *v, w*); Goeldi, Ibis, 1903, p. 499: Rio Capim.

Columba plumbea bogotensis Heilmayr, Nov. Zool. xiii. 1906, p. 383: Prata, Para.

There are two specimens in the British Museum from the Rio Capim in Para, collected by the late A. R. Wallace in June 1849. These differ from *C. p. plumbea* in being much smaller and in having the lower back, upper tail-coverts, and tail more bronze and less purple than in the Rio Janeiro bird. The purple on the head and hind-neck is brighter, and the under surface dull vinaceous instead of plumbeous.

Total length 300 mm., exposed culmen 15, wing 175, tail 120, tarsus 19, middle toe and claw 32.

This form differs from *C. p. bogotensis* from Bogota in having the back, wings, and tail less green, the head and hind-neck darker vinous, and in its smaller wing and tail measurements.

Columba plumbea purpureotincta.

Columba purpureotincta Ridgway, Proc. U.S. Nat. Mus. x. 1887, p. 594, note: Demerara: Chubb, B. British Guiana, i. 1916, p. 40.

Columba plumbea Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 323 (part, specimens *x-l'*).

This form is of smaller size and rather more vinous in coloration than the previous forms. Of four males and four females I find that the wing varies in measurement from 156-171 and tail 103-122 mm.

Columba plumbea bogotensis.

Columba plumbea bogotensis Berlepsch & Leverkuhn, Ornith. vi. 1890, p. 32: Santa Fé de Bogota.

Columba plumbea Tacz. Orn. Pér. iii. 1886, p. 234; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 323 (part, specimens *n-u*).

a. ♂. Baeza, eastern Ecuador, 6000 ft., March 1914. "Iris dark madder-red, eyelids dark claret-red; bill black, nostrils dull red; feet red" (*W. Goodfellow*).

b. ♀. Mindo, western Ecuador, 6000 ft., January 1914. "Iris dark dull red; bill black, nostrils red; feet red" (*IV. Goodfellow*).

No. 2185. ♂. Oroya, Puno, Peru, 1000 metres, 15 July, 1900. Native name "Torcasa" (*P. O. Simons*).

The bird from western Venezuela and Colombia is again a rather larger form, and in a general sense darker and inclining to bronze-green on the back. This form, which is known under the name of *C. p. bogotensis*, is distributed in western Venezuela, Colombia, Ecuador, and Peru. The measurements are:—Culmen 15–16 mm., wing 167–200, tail 114–149.

Columba plumbea andicola.

Columba plumbea andicola Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 32.

Columba plumbea Selater & Salvin, P. Z. S. 1879. p. 639: Mapiri, Bolivia; Salvad. Cat. B. Brit. Mus. xxi. 1893. p. 323 (part, specimens *f, g*).

I find that the three examples in the British Museum (one from Chanchamayo, central Peru, and two from Bolivia) differ from *C. p. bogotensis* in being rather paler on the back, wings, and tail; the head, hind-neck, and entire under surface lilac instead of vinous, and the chin and throat uniform with the breast and abdomen, instead of isabelline; the wings and tail are shorter.

Total length 295 mm., exposed culmen 17, wing 181, tail 134, middle toe and claw 36.

Habitat. Central Peru to Bolivia.

The type, which is in the British Museum, was collected by the late Clarence Buckley at Mapiri in Bolivia.

The specimen from Chanchamayo was presented to the British Museum by Count Branicki in 1892 with the name "*C. andicola* Berl. & Stolzmann" written on the label. I have searched for the description in Berlepsch and Stolzmann's papers on Kalinowski's collection, but failed to find it. I am using the name, however, with the hope that the description will come to light.

***Columba ogilvie-granti*.**

Columba vinacea (nec Temm.) Sclater & Salvin, P. Z. S. 1869, p. 598 : Cosnipata ; iid. op. cit. 1873, p. 306 : Santa Cruz, Rio Huallaga.

Columba subvinacea (nec Lawrence) Tacz. Orn. Pér. iii. 1886, p. 236.

Columba plumbea Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 323 (part, specimens *k, l, m*).

Columba ogilvie-granti Chubb, Bull. Brit. Orn. Club, xxxviii. 30 Oct. 1917, p. 5.

Adult male. Entire back, scapulars, wings, and tail glossy purplish brown ; flight-quills brown, rather paler on the inner webs towards the base ; hinder crown, nape, hind-neck, and mantle vinous purple ; forehead and sides of face paler and inclining to cinnamon-rufous ; breast, abdomen, under tail-coverts, axillaries, and under wing-coverts vinaceous ; flight-quills below russet-brown, becoming greyish brown at the tips ; lower aspect of tail purplish brown.

The type, which is in the National Collection, was collected by Mr. O. T. Baron at Guayabamba, northern Peru, at an altitude of 4500 feet in September 1894.

There are three other examples of this species in the British Museum which are identical with the type. Two of these were collected by the late Henry Whitely at Cosnipata, in south-east Peru, during October 1868 and May 1871, and the third by E. Bartlett on the Huallaga River in July 1868.

This species is named in honour of Mr. W. R. Ogilvie-Grant.

***Zenaida auriculata auriculata*.**

Peristera auriculata Des Murs in Gay's Hist. Chil. i. 1847, p. 381, pl. 6 : Chile.

Zenaida auriculata Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 384 (part, specimens *w-e''*).

Zenaida maculata Scl. & Salv. P. Z. S. 1879, p. 639 : Bolivia ; Tacz. Orn. Pér. iii. 1886, p. 237 ; Allen, Bull. Amer. Mus. ii. 1890, p. 105 : Bolivia.

Zenaida virgata Bertoni, Aves Nuev. Paraguay, 1901, p. 24.

No. 243. ♂. Sinche Guaranda, Ecuador, 4000 metres, Dec. 1898. Native name "Paloma."

No. 352. ♂. Riobamba, Ecuador, 2800 metres, Jan. 1899.

Nos. 419, ♀; 420, ♂. Guallabamba, Ecuador, 3500 metres, Jan. 1899.

Nos. 598, ♂; 599, ♂. Cañar, Ecuador, 2600 metres, April 1899.

No. 764. ♂. Ona, Guishapa, Ecuador, 2000 metres, May 1899.

No. 826. ♂. Loja, Ecuador, 2000 metres, June 1899.

No. 1091. ♂. Catacaos, Peru, 40 metres, Aug. 1899.

No. 1128. ♂. Piura, ,, 50 metres, Aug. 1899.

No. 1443. ♂. Caraz, ,, 2200 metres, Dec. 1899.

No. 1663. ♀. Chosica, ,, 850 metres, Jan. 1900.

No. 2750. ♂. Tapacari, Bolivia, 3000 metres, March 1901.

No. 3062. ♂. Sucre, ,, 3000 metres, Sept. 1901.

No. 33. Trujillo, N.W. Peru, March 1912. Collected and presented to the British Museum by the late Lord Brabourne.

The present series of this species has been compared with that in the British Museum, which contains fifty-five specimens. There is great variation of plumage throughout the entire series, but none that favours any particular locality. I notice, however, that there is a difference of wing-measurement. The birds from Mexiana, Para, Ceara, Noronha Islands, and Matto Grosso have the wing 132-140 mm., Ecuador and Peru 145-150, Patagonia 150-154, western Argentina 145-152, Tarapaca 141-160, central Chile 146-157, and southern Chile 147-154. It will be noticed, therefore, that the eastern Brazil and Noronha Islands birds are the smallest form, and may very well be separated subspecifically as follows:—

Zenaida auriculata noronha, subsp. nov.

Zenaida noronha G. R. Gray MSS. List Birds Brit. Mus., Columbæ, 1856, p. 47: Fernando Noronha and Para.

Zenaida maculata (nec Gmel.) Ridley, Nat. Hist. Fernando de Noronha, 1890, p. 479.

Zenaida auriculata Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 384 (part, specimens *b-v*).

Adult male. Forehead, sides of the crown, sides of the face, throat, breast, and abdomen pale vinous, becoming paler on the thighs and almost white on the under tail-coverts; sides of the body, axillaries, and inner under wing-coverts pale grey; outer edge of wing below slate-grey; flight-quills below pale brown; lower aspect of tail dark brown with greenish-white tips to the feathers; crown of head and nape slate-grey; hind-neck and sides of the neck coppery red; back, wings, and tail pale earth-brown; some of the major upper wing-coverts and innermost secondaries marked with black; bastard-wing, primary-coverts, and flight-quills dark brown, narrowly edged with white on the outer webs of the primaries: lateral tail-feathers grey at the base, with a subterminal black band and white, or greyish-white tips, the outermost pair entirely white on the outer webs.

Total length 232 mm., exposed culmen 16, wing 132, tail 82, tarsus 24.

Adult female. Similar to the adult male. Wing 131 mm.

The male and female described were collected at Fernando Noronha I-land by Mr. H. N. Ridley in August 1887.

Melopelia meloda.

Columba meloda Tschudi, Archiv für Naturg. i. 1843, p. 385: Western Andes, Peru.

Melopelia meloda Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 395.

a. ♀ imm. Trujillo, N.W. Peru, 25 March, 1912. "Iris whitish; feet red; bill black; cere ultramarine-blue" (*Brabourne*).

This specimen, which was collected by the late Lord Brabourne, is slightly immature, but is much welcomed as the sex was not previously represented in the British Museum. Since Count Salvadori catalogued the Columbidæ a second male bird has been added to the National Collection. This was collected by Mr. O. T. Baron at Chepen, Peru, 400 feet, in June 1894, and is in the fully adult plumage.

Gymnopelia ceciliæ ceciliæ.

Columba (Chamæpelis) ceciliæ Lesson, *Echo du Monde savant*, 12 Jan. 1845, p. 8: Peru; Reprint 1913, p. 229.

Columba (Chamæpelis) anais Lesson, *Deser. Mamm. et Ois.* 1847, p. 210: Peru.

Gymnopelia erythrothorax Tacz. *Orn. Pér.* iii. 1886, p. 249; *Salvad. Cat. B. Brit. Mus.* xxi. 1893, p. 468 (part, specimens *a-d*).

Gymnopelia anais Brabourne & Chubb, *B. S. Amer.* i. 1912, p. 17, no. 170.

Gymnopelia ceciliæ ceciliæ Chubb, *Bull. Brit. Orn. Club*, xxxviii. 4 Dec. 1917, p. 18.

♂. Cajabamba, Peru, 9000 feet, March 1894.

♀. Huamachuco, Peru, 10,400 feet, March 1894.

These two specimens were collected by O. T. Baron.

No. 1410. ♀. San Pablo, Cajamarca, Peru, 1500 metres, Nov. 1899.

No. 1594. ♂. Marca, Peru, 3000 metres, Dec. 1899.

No. 1829. ♂. San Mateo, Lima, Peru, 3200 metres, Feb. 1900.

No. 2105. ♂. Caylloma, Peru, 4300 metres, June 1900.

a. ♀. Chosica, Lima, May 1914.

This female specimen from Chosica was collected by the late Lord Brabourne.

It is interesting to note that Lesson named this bird twice, in each case after a different lady—as in the ‘*Echo du Monde*,’ under the name *Columba (Chamæpelis) ceciliæ*; at the end of the article he writes:—“Cet oiseau vit

au Pérou. Il est consacré à madame Gautrau, née Cécile Lesson"; and in his *Descr. Mamm. et Ois.*, under the name of *Columba (Chamæpelis) anais* Lesson, he writes:—" Cette gracieuse espèce vit au Pérou. Elle est dédiée à mademoiselle A. Rand. Nous l'avons décrite pour la première fois dans l'Écho du monde savant de 1845, p. 8."

Gymnopelia ceciliæ gymnops.

Chamæpelis gymnops G. R. Gray, *List of the Birds in the British Museum, Columbæ*, 1856, p. 53 [nom. nud.] : Bolivia.

Gymnopelia erythrothorax Allen, *Bull. Amer. Mus.* ii. 1890, p. 105 : Bolivia; *Salvad. Cat. B. Brit. Mus.* xxi. 1893, p. 468 (part, specimens *e-h*).

Gymnopelia ceciliæ gymnops (Gray MS.) Chubb, *Bull. Brit. Orn. Club*, xxxviii. 4 Dec. 1917, p. 18.

No. 2749. ♀ adult. Tapacari, Bolivia, 3000 metres, March 1901. Native name "Tartorhita."

No. 3085. ♂ adult. El Cabrada, Bolivia, 3500 metres, September 1901.

Nos. 3162, 3163. ♂ ♀ adult. Challapata, Bolivia, 3750-3800 metres, October 1901. Native name "Palomita."

With a series of twenty-one birds in the British Museum, including the birds collected by Simons, I notice that the northern Peruvian birds are paler than those from Bolivia and south-east Peru.

The southern birds, in most individuals, have the hind-neck tinged with vinous, and the back, wings, and tail darker and more earth-brown, instead of grey. The breast is also more vinous and the abdomen and under tail-coverts buff, instead of pale isabelline-buff.

Total length 183 mm., exposed culmen 11, wing 101, tail 71, tarsus 17.

The type, No. 3163, is in the British Museum, and was collected by P. O. Simons at Challapata, Bolivia, at an altitude of 3750 metres on 14 October, 1901. The female, No. 3162, also collected by Simons at the same place, is similar to the male described, but paler in coloration. Wing 95 mm.

Columbula picui.

Columba picui Temm. Fig. et Gall. i. 1813, pp. 435, 498 : Paraguay.

Columbula picui Sel. & Salv. P. Z. S. 1879, p. 640: Sorata, Bolivia; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 470; Lönnberg, Ibis, 1903, p. 459: Bolivian Chaco.

No. 2553. ♂ adult. Chulumani, Bolivia, 2000 metres, 27 Dec. 1900. Native name "Ulinchi."

No. 2765. ♂ adult. Tapacari, Bolivia, 3000 metres, 23 March, 1901.

Nos. 3103, 3104. ♂ adult. El Cabrada, Bolivia, 3600 metres, 19 Sept. 1901.

I have compared these four specimens with twenty-seven others in the British Museum from Brazil, Paraguay, Bolivia, Argentina, and Chile, and find them to be very similar both in coloration and measurements.

No. 2765 is unusually white on the forehead, while one from Sorata, Bolivia, collected by C. Buckley, is pale vinous on the fore part of the head and deeper vinous on the breast than any other in the series.

Chamæpelia griseola quitensis.

Chamæpelia passerina quitensis Todd, Ann. Carn. Mus. viii. 1913, p. 547: Zambiza, Ecuador.

Chamæpelia passerina (nec Linn.) Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 473 (part, specimens q^3-w^7); id. & Festa, Boll. Mus. Torino, xv. 1900, No. 368, p. 35: Ecuador.

Chamæpelia griseola Tacz. Orn. Pér. iii. 1886, p. 244.

No. 321. ♀ adult. Riobamba, Ecuador, 3000 metres, 31 Dec. 1898. Native name "Tartalita."

Nos. 340, 367. ♀ ♂ adult. Riobamba, 3000 metres, Jan. 1899.

The three birds enumerated above are similar to others in the British Museum from Ecuador and Peru.

This bird is allied to *C. griseola* Spix, but the male is easily distinguished by its darker vinous coloration and larger size. The female differs from the female *C. griseola* in being earth-brown on the abdomen and flanks.

Chæmepelia minuta minuta.

Columba minuta Linn. Syst. Nat. 12th ed. i. 1766, p. 285 : Cayenne.

Chamæpelia minuta Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 481 (part).

Columbina grisea Brabourne & Chubb, B. S. Amer. i. 1912, p. 18, no. 176.

Chemepelia minuta minuta Todd, Ann. Carn. Mus. viii. 1913, p. 573.

a, b. Adult. Trujillo, N.W. Peru, 1 Sept. 1912.

These two birds were collected by the late Lord Brabourne and presented by him to the British Museum.

No. 1664. Imm. Chosica, Peru, 850 metres, 30 Jan. 1900. Native name "Tortalita."

This young bird is similar to the adult female, but differs in being everywhere paler, with narrow white edgings to the feathers on the upper surface, and the fore-neck drab-grey instead of being pale vinous.

In following Clyde Todd's distribution of this species, with the material at my disposal, I find that there is more or less variation in the wing-measurement: from Trinidad we have two individuals with the wing-measurement 73 mm., from Colombia four specimens 75 mm., from British Guiana four individuals measure 73-77 mm., while from eastern Brazil nine examples measure 71-81 mm., and from Peru seven specimens measure 73-78 mm. It will be observed, therefore, that the smallest are from Trinidad and the largest from eastern Brazil.

Eupelia cruziana.

Columba cruziana Knip & Prév. Pigeons, ii. 1838-43, p. 89, pl. 48: Bolivia.

Chamæpelia cruziana Tacz. Orn. Pér. iii. 1886, p. 248; Salvad. & Festa, Boll. Mus. Torino, xv. 1900, no. 368, p. 35: Ecuador.

Columbina cruziana Brabourne & Chubb, B. S. Amer. i. 1912, p. 18, no. 177.

Eupelia cruziana Todd, Ann. Carn. Mus. viii. 1913, p. 512.

No. 42. ♂ adult. Puna Island, Ecuador, 10 metres, 4 Nov. 1898.

Nos. 712, ♀; 732, ♂. Cuenca, Ecuador, 2200 metres, May 1899.

Nos. 901, ♂; 911, ♀. Loja, Ecuador, 2000 metres, June 1899.

No. 1081. ♀ imm. Catacaos, Peru, 40 metres, August 1899.

Nos. 1068, ♂; 1111, ♂; 1126, ♂. Piura, Peru, 50 metres, August 1899.

Nos. 1281, ♂; 1282, ♀; 1283, ♀; 1351, ♂. Eten, Peru, 15 metres, September, October, 1899.

Nos. 1537, ♀; 1538, ♀; 1539, ♀; 1540, ♂; 1541, ♂. Caraz, Peru, 2200 metres, December 1899.

20 ♀, 58 ♂ imm. Trujillo, N.W. Peru, September 1912. Collected and presented to the British Museum by the late Lord Brabourne.

I have compared this series with sixteen other examples in the British Museum from Ecuador, Peru, Bolivia, and northern Chile, and find them to be very similar in coloration of plumage, but the birds from the south are rather larger in wing-measurement. The amount of material to hand, however, is not sufficient to enable me to come to any satisfactory conclusion on this point.

Claravis pretiosa.

Peristera pretiosa Ferari-Perez, Proc. U. S. Nat. Mus. ix. 1886, p. 175: Mexico.

Peristera cinerea (nec Scop.) Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 491; id. & Festa, Boll. Mus. Torino, xv. 1900, No. 368, p. 35: Ecuador.

Claravis pretiosa Brabourne & Chubb, B. S. Amer. i. 1912, p. 18, no. 183.

a. Adult. Zaruma, Ecuador, 1000 metres, 17 June, 1899.

This specimen, which was collected by P. O. Simons, is in good condition, and is similar to others in the British Museum from various localities in South America.

Metriopelia melanoptera melanoptera.

Columba melanoptera Molina, Hist. Nat. Chili, 1782, p. 308: Chile.

Metriopelia melanoptera Tacz. Orn. Pér. iii. 1886, p. 239; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 497 (part, specimens *f-r*).

No. 2067. ♂. Arequipa, S.E. Peru, 2300 metres, May 1900.

Nos. 2812, 2813. ♂. Paratani, Bolivia, 2500 metres, April 1901.

No. 3016. ♂. Oruro, Bolivia, 3700 metres, August 1901.

No. 3100. ♂. El Cabrada, Bolivia, 3500 metres, September 1901.

Nos. 3180, ♀; 3181, ♂. Challapata, Bolivia, 3750 metres, October 1901. Native name "Polomita."

These examples agree fairly well with others in the British Museum from Chile, Patagonia, western Argentina, Bolivia, and Peru.

With a series of thirty-two specimens of this species from Ecuador, Peru, Bolivia, western Argentina, and Chile, I notice, as has already been remarked by Berlepsch & Taczanowski and also by Count Salvadori, that the seven birds from Ecuador are darker on the head and back and the lower flanks, and the vinous on the underparts is paler and not so pronounced as in examples from Peru and the rest of the localities mentioned above. I have therefore separated the Ecuador bird subspecifically under the following name:—

Metriopelia melanoptera saturatior.

Metriopelia melanoptera saturatior Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 32.

Metriopelia melanoptera (nec Molina) Berl. & Tacz. P. Z. S. 1884, p. 311: Western Ecuador; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 497 (part, specimens *a-e*); id. & Festa, Boll. Mus. Torino, xv. 1900, No. 368, p. 36; Brabourne & Chubb, B. S. Amer. i. 1912, p. 19, no. 187 (part).

Adult male. Differs from *M. m. melanoptera* in being darker on the head, back, and lower flanks, and the vinous on the underparts not so pronounced as in examples from Peru and the more southern localities.

Total length 200 mm., exposed culmen 12, wing 131, tail 78, tarsus 21.

Habitat. Ecuador.

The type, a male, No. 642, in the British Museum, was collected at Cañar, western Ecuador, at an altitude of 3000 metres, by P. O. Simons on 10 April, 1899. There is also a female collected by Simons on 9 January, 1899, at Riobamba, 3100 metres.

Leptophaps aymara aymara.

Columba aymara Knip & Prév. Pigeons, ii. 1838-43, p. 62, pl. 32: Bolivia.

Metriopelia aymara Sclater & Salvin, P. Z. S. 1879, p. 639: Bolivia; Tacz. Orn. Pér. iii. 1886, p. 240; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 499 (part, specimens *a-n*).

Leptophaps aymara Reichenow, J. f. O. 1913, p. 401.

Nos. 2083, 2085, 2099, ♂; 2084, ♀. Sumbay, Peru, 4000 metres, June 1900. Native name "Palomita."

Nos. 3000-3007. ♂ ♀. Oruro, Bolivia, 3700 metres, August 1901. Native names "Tortalita," "Ulincho."

Nos. 2737, 2738. ♂ ♂. Catamarca, Bolivia, 4400 metres, March 1901. Native name "Curicata."

No. 3026. ♀. Livichuco, Bolivia, 4500 metres, August 1901. Native name "Culyocota."

No. 3115. ♀. Potosi, Bolivia, 4300 metres, Sept. 1901. Native name "Koulco."

Nos. 3148, ♀; 3149, 3179, ♂. Challapata, Bolivia, 3800 metres, Oct. 1901.

Nos. 3190, 3191. ♂. Uyuni, Bolivia, 3660 metres, Nov. 1901.

I have compared the Simons birds with others in the British Museum from Peru and Tarapaca, all of which agree fairly well. There are, however, four specimens from Pampas

Argentinas and one from Santa Catalina that are smaller than the others. These represent *Columbina aurisquamata* Leybold, which can be separated, by their smaller size, paler coloration above, and purple-grey below, under the following name:—

Leptophaps aymara aurisquamata.

Columbina aurisquamata Leybold, Leopoldina, Heft viii. 1873, No. 7, p. 53: Pampas Argentinas.

Metriopelia aymara Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 499 (part, specimens *o-r*).

The four specimens in the British Museum from Pampas Argentinas are smaller and paler in coloration than others from Bolivia, and as Leybold has already named the bird from there, it may be well to regard it as a subspecies of *L. aymara aymara*.

Leptoptila verreauxi verreauxi.

Leptoptila verreauxi Bonap. Consp. Av. ii. 1854, p. 73: New Granada.

The series in the British Museum of this bird, which has hitherto been placed under *L. verreauxi* Bonap., appears to me to contain several subspecific forms and can be easily divided into geographical subspecies.

The material at my disposal shows that the Colombian and western Venezuelan birds are the same. I cannot, however, vouch for the eastern Venezuelan ones, as there are none in the National Collection.

Leptoptila verreauxi riottei.

Leptoptila riottei Lawr. Ann. Lyc. New York, ix. 1869, p. 138: Navarro, Costa Rica.

The birds from Costa Rica and Panama in the British Museum are, as a rule, larger in size, and as Lawrence has already introduced a name, it may as well be used for individuals from these localities. It is quite possible, of course, that with a larger series other characters may be discovered.

Leptoptila verreauxi insularis.

Leptoptila insularis Richmond, Proc. U.S. Nat. Mus. xviii. 1896, p. 659: Margarita Island.

There are three birds in the British Museum from Margarita Island collected by Dr. P. R. Lowe, one of which is a fully adult male and is quite different from the Colombian bird, being much paler on the under surface, while a greyish hue pervades the head, hind-neck, and sides of the neck. On these grounds, therefore, I consider it worthy of subspecific rank.

Leptoptila verreauxi brevipennis, subsp. nov.

Leptoptila brevipennis (nomen nudum) Gray, List B. Brit. Mus., Columbæ, 1856, p. 54: Trinidad.

Gray's type from Trinidad is darker on the back, wings, and tail, being bronze with a slight tinge of green, instead of clay-brown; head and hind-neck inclining to grey; sides of face, throat, fore-neck, and breast darker vinous than in the Colombian bird, *L. v. verreauxi*.

Total length 260 mm., exposed culmen 16, wing 137, tail 97, tarsus 27.

It may be mentioned that there are two others in the British Museum from Trinidad which bear out the characters given above.

Leptoptila verreauxi macconnelli.

Leptoptila verreauxi macconnelli Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 32.

There are seven birds from British Guiana in the National Collection, all of which differ conspicuously from the typical *L. v. verreauxi* and the other forms by the fiery-red patch on the sides of the nape and behind the eye. I have therefore described it as a separate subspecies under the above title.

Adult male. Differs from *L. v. verreauxi* in having the back, wings, and tail bronze-green instead of clay-brown; mantle deep amethystine; above and behind the eye and sides of the occiput fiery-red; fore-neck and breast darker vinous than in the typical form.

Total length 245 mm., exposed culmen 18, wing 134, tail 108, tarsus 30.

***Leptoptila verreauxi* decolor.**

Leptoptila decolor Salvin, Nov. Zool. ii. 1896, p. 21 :
Cajabamba.

Leptoptila verreauxi Salvad. Cat. B. Brit. Mus. xxi. 1893,
p. 548 (part, specimens *v*, *w*).

No. 38. ♂. Puna Island, Ecuador, 10 metres, 4 Nov. 1898.
Native name "Paloma."

No. 903. ♂. Loja, Ecuador, 2000 metres, 6 June, 1899.
Native name "Paloma grande."

No. 1099. ♀. Piura, N.W. Peru, 30 metres, 8 Aug.
1899.

The three birds collected by Simons are identical with *L. v. decolor* in the colour of the upper parts, but rather darker vinous and approaching *L. v. verreauxi* on the under surface.

***Leptoptila megalura*.**

Leptoptila megalura Selater & Salvin, P. Z. S. 1879, p. 640 :
Tiltilo, Prov. Yungas, Bolivia ; Salvad. Cat. B. Brit. Mus.
xxi. 1893, p. 556, pl. xiii.

No. 2675. ♂. Chulumani, Bolivia, 2200 metres, 21
Jan. 1901. Native name "Paloma Tueuru."

I have compared this specimen with the type in the British Museum and find it to be almost identical in plumage, except that it is slightly darker on the sides of the face and inclining to ochreous on the flanks, but the wing and tail measurements are rather larger, being : wing 158 mm., tail 116, whereas in the type the wing is 145 and the tail 111, and in the co-type, wing 147 and the tail 105. It may be remarked, however, that neither of the typical specimens is sexed.

***Geotrygon bourcierii* bourcierii.**

Geotrygon bourcierii Bonap. Consp. Av. ii. 1854, p. 171 :
Ecuador ; Salvad. Cat. B. Brit. Mus. xxi. 1893, p. 576.

a. Mindo, W. Ecuador, 6000 feet, Jan. 1914. "Bill black ; feet red ; iris reddish brown ; eyelids dull red" (*W. Goodfellow*).

Nos. 978, 978 *a.* Canguana, W. Ecuador, 1500 metres, 8 July, 1899.

I have compared the three birds enumerated above with three others in the British Museum, and find them to be very similar in colour of plumage and in wing and tail measurements. There is one individual, however, from Baeza in eastern Ecuador, which appears to differ from the other six, and which I propose to deal with separately.

Geotrygon bourcieri baeza.

Geotrygon bourcieri baeza Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 33.

This bird is similar to *G. bourcieri bourcieri*, but differs in being paler and more grey on the under surface, darker on the upper parts, and larger in size. "Iris brown; eyelids red; bill black; nostrils reddish; feet red" (*W. Goodfellow*).

Total length 300 mm., exposed culmen 18, wing 164, tail 106, tarsus 43.

The average wing-measurement of the six birds belonging to *G. b. bourcieri* from western Ecuador is 150 mm. and the tail 88 mm.

The type, which is in the British Museum, was collected by W. Goodfellow in February 1914, and presented to the National Museum by Mr. E. J. Brook.

Habitat. Baeza, eastern Ecuador, altitude 6000 feet.

Family RALLIDÆ.

Rallus æquatorialis.

Rallus æquatorialis Sharpe, Cat. B. Brit. Mus. xxiii. 1894. p. 18: San Lucas, Ecuador.

No. 665. Cañar, Ecuador, 2600 metres, 20 April, 1899. Native name "Patita." "Iris dull red; bill and feet red" (*P. O. Simons*).

This specimen is very similar to the type which is in the British Museum, but differs in having the lower abdomen and vent isabelline-buff.

a. Imm. Antisara, E. Ecuador, 1200 ft., October 1914. "Iris dark red; bill scarlet towards the tip of the upper mandible; feet dingy yellow" (*W. Goodfellow*).

b, c. Nestlings in down. Antisara, 1200 ft., October 1914. "In black down which is for the most part tipped with white; round the base of the bill orange-red" (*W. Goodfellow*). "Iris dark brown, eyelids scarlet; feet light yellow; bill orange at base, tip vivid scarlet" (*W. Goodfellow*).

Pardirallus maculatus.

Rallus maculatus Bodd. Tabl. Pl. Enl. 1783, p. 48: Cayenne.

a. ♂; *b.* ♀. Trujillo, N.W. Peru, September & December, 1912. "Iris crimson; bill dark green, base of lower mandible dull red; feet purplish red" (*Brabourne*).

Nos. 1317, 1352. Adult. Eten, Peru, October 1899. Native name "Gallonita." "Found in tule swamp." Simons states that this bird is good-eating.

After the examination of a series of fourteen specimens in the British Museum from the following localities—Surinam, Trinidad, Tobago, Venezuela, Colombia, Brazil, Pernambuco, Rio de Janeiro, and Buenos Aires, I see no appreciable difference in the birds from any of the localities cited. This appears to be the first record of this bird in Peru.

The nestling of this species is entirely black.

Pardirallus rityrhynchus rityrhynchus.

Ypacaha pardo Azara, Apunt. i. 1802, p. 220.

Rallus rityrhynchus Vieill. N. Dict. d'Hist. Nat. xxviii. 1819, p. 459: Paraguay; *Sci. & Huds. Argent. Orn.* ii. 1889, p. 149.

Limnopardalus rityrhynchus Sharpe, *Cat. B. Brit. Mus.* xxiii. 1894, p. 29.

Nos. 4864, 4866. ♂ ♀, 4892. El Carrizal, Sierra de Cordoba, Argentina, 1000 metres, Nov. and Dec. 1915.

Nos. 5216, 5218, ♂ ♀. Isla Ella, Delta del Parana, Argentina, Jan. 1917.

These specimens were collected and presented to the British Museum by Mr. Robin Kemp.

The series of this bird in the National Collection exhibits much variation in colour, especially on the under surface,

some being much paler than others. I notice, too, that Nos. 5216 and 5218 are somewhat darker than those from Cordoba.

The immature female of *P. r. rityrhynchus* is earth-brown in its first plumage, with a dull white throat. This specimen was collected by C. H. B. Grant at Cape San Antonio, Prov. Buenos Aires, on 21 December, 1908: another young bird, which is a male, was collected on the 28th of the same month and has still got the dull white throat, but is darker on the breast, abdomen, and flanks; while a third young bird collected at Ajó on 27 January, 1909, though larger in size, differs but very little from the young female mentioned above. A young female obtained on 4 February at Los Ynglases has lost the white on the throat, which is replaced by grey, and the breast and abdomen are becoming slate-blue; yet another young male collected at the same place on 10 February is still in the earth-brown plumage, although it is larger in size.

The young of *P. r. sanguinolentus* appears, from a specimen collected at the Rio Cauta on 8 March, 1891, to pass through a much darker phase of plumage, being coffee-brown in this particular bird.

After examining the series of *Pardirallus rityrhynchus* and *P. sanguinolentus* in the British Museum, I have come to the conclusion that the difference between the two can only be regarded as subspecific. *P. rityrhynchus* was described by Vieillot from Paraguay, and ranges from there to southern Brazil, Uruguay, and Argentina, and is not, so far as I can gather, found on the western side of the Andes; while *P. sanguinolentus*, which was described by Swainson from Chile, does not occur on the eastern side of the Andes. The character given for the separation of these two species—namely, the greater amount of black on the upper parts in *P. rityrhynchus*—is a variable one, and in consequence of this the eastern bird has been said to occur in western Peru, from the fact that the individuals from north-western Peru show an increased amount of black on the upper surface, compared with those of *P. sanguinolentus* from

Chile. I am of opinion, however, that the bird in north-western Peru is a different race, and I have separated it under the following name:—

***Pardirallus rityrhynchus simonsi*.**

Pardirallus rityrhynchus simonsi Chubb, Bull. Brit. Orn. Club, xxxviii. 29 Dec. 1917, p. 33.

Adult male. Closely allied to *P. r. sanguinolentus*, but differs in being olive-brown on the upper surface, instead of coffee-brown, and not so uniform; the underparts paler—the breast and abdomen slate-grey instead of bluish slate-colour; and the wing-measurement smaller.

Total length 330 mm., exposed culmen 53, wing 134, tail 63, tarsus 52, middle toe and claw 58.

Habitat. North-western Peru.

The type, which is in the British Museum, was collected at Eten in north-western Peru by P. O. Simons on 9 October, 1899: No. 1345.

There is also an example in the British Museum said to have been collected at Junin by Jelski, which Taczanowski examined when writing his Orn. Pérou and on the label of which he wrote “= *cæsius* Tschudi.” It is certainly different from the ten other specimens in the National Collection from Peru, and must be regarded therefore as a separate form.

***Pardirallus rityrhynchus tschudii*, subsp. nov.**

Rallus cæsius (nec Spix) Tschudi, Fauna Peruana, 1816, p. 300: rivers of the coast and forest-regions of Peru; Tacz. P. Z. S. 1880, p. 213: Cutervo, Lima, Junin; id. Orn. Pér. iii. 1886, p. 316.

Rallus rityrhynchus (nec Vieill.) Tacz. P. Z. S. 1874, p. 559.

Limnopardalus rityrhynchus (nec Vieill.) Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 29 (part, specimen *l*).

Adult female. General colour of the upper surface, including the nape, hind-neck, entire back, wings, and tail, chocolate-brown, darker and inclining to blackish on the apical portion of the innermost secondaries and tail-feathers;

fore part of face and forehead blackish with glossy-black shaft-lines to the feathers on the latter; hinder face, throat, sides of neck, breast, and abdomen deep bluish slate-colour; vent, lower flanks, thighs, and under tail-coverts dusky black; under wing-coverts blackish brown. This bird differs also by its shorter and much more slender bill.

“Bill olive-green, bluish at the base of the upper mandible, a large blotch of red on the sides; iris red; feet yellowish red” (*Taczanowski*).

Total length 301 mm., exposed culmen 48, wing 131, tail 59, tarsus 43, middle toe and claw 50.

Habitat. Central Peru.

The type, which is in the British Museum, was collected at Junin, central Peru.

Pardirallus rityrhynchus sanguinolentus.

Rallus sanguinolentus Swains. Anim. in Menag. 1837, p. 335: “Inhabits Brazil and Chile.” I designate Chile as the type-locality.

Pardirallus sanguinolentus Brabourne & Chubb, B. S. Amer. i. 1912, p. 22, no. 222.

Nos. 234, 324. Maquehue, Tamuco, southern Chile, March 1908–09.

No. 54. Maquehue, Tamuco, southern Chile, Sept. 1905.

Nos. 46, 47. Petal, Tamuco, Nov. 1909. Indian name, “Piden.”

The specimens mentioned above are in fully adult plumage and are typical *P. sanguinolentus* of Swainson. They were collected by Messrs. D. S. Bullock and A. C. Saldaña and are now in the British Museum.

Aramides wolfi.

Aramides wolfi Berl. & Tacz. P. Z. S. 1883, p. 576: Chimbo, W. Ecuador; Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 55: Balzar Mts.; Salvad. & Festa, Boll. Mus. Torino, xv. No. 368, 1900, p. 40: forest of the Rio Peripa, W. Ecuador.

a. ♀. Mindo, W. Ecuador, 31 Dec. 1913. “Iris reddish gold; eyelids bright red; feet bright rose-pink; bill light emerald, base golden green” (*W. Goodfellow*).

This specimen, which is in full plumage and well preserved, is a very welcome addition to the National Collection. Although there were two previously in the collection, yet neither of them had any information in regard to sex or colour of soft parts.

b, c. Nestlings covered entirely with soot-black down. Mindo, 6000 ft., Jan. 1914. "Iris brown; eyelids and skin generally showing bright red through the down; feet brown; bill reddish brown, extreme tip yellow" (*W. Goodfellow*).

Aramides cajanea cajanea.

Poule-d'eau de Cayenne, D'Aubent. Pl. Enl. ix. pl. 352.

Fulica cajanea P. L. S. Müller, Syst. Nat. Suppl. 1776, p. 119; Cayenne.

Fulica major Bodd. Tabl. Pl. Enl. 1783, p. 21.

Cayenne Gallinule, Lath. Gen. Syn. iii. pt. 1, 1785, p. 253; Cayenne.

Fulica cayennensis Gmel. Syst. Nat. 1789, p. 700; Cayenne.

Rallus maximus Vieillot, N. Diet. d'Hist. Nat. xxviii. 1819, p. 555; Cayenne.

Aramides cayanea Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 57 (part, specimens *c, d, e*): Maroni river, Surinam, and Bartica Grove, British Guiana.

This species was originally described by Müller from Cayenne under the title quoted from his work, and by various other authors since, under different names, also from the same place. It is chiefly characterized by having the back rufous-brown, the rump and upper tail-coverts deep black, neck all round dark slate-grey, the abdomen chestnut, and the thighs dusky grey.

The distribution appears to be, from material examined in the British Museum and McConnell collections, French, Dutch, and British Guianas, and Venezuela.

I am of opinion, however, that this species, which has hitherto been supposed to occur throughout South America to Panama, is easily separable into three subspecific forms.

There is an example from Pará which has been associated with the Guiana bird, but it is much deeper in colour both above and below, and I am inclined to think that with more

material it might prove to be a distinct form, in which case it may bear the name of

***Aramides cajanea grahami*, subsp. nov.**

Total length 330 mm., exposed culmen 53, wing 275, tail 60, tarsus 73, middle toe and claw 65.

Habitat. Pará.

The type, which is in the British Museum, was collected by the late Ronald Graham at Pará, Brazil.

***Aramides cajanea salmoni*.**

Aramides cajanea salmoni Chubb, Bull. Brit. Orn. Club, xxxviii. 4 March, 1918, p. 48: Remedios, Antioquia, Colombia.

Aramides cajanea Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 57 (part, specimen *b*): Remedios, Antioquia, Colombia.

Aramides chiricote (nec Vieill.) Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 58 (part, specimens *l, m, n, o*: interior of Colombia, Panama and Veragua).

This form has been separated from *A. c. cajanea* on account of having the back and upper wing-coverts bronze olive-green instead of rufous-brown, the rump and upper tail-coverts smoke-black instead of deep black, the neck all round ash-grey instead of dark slate-grey, the abdomen rufous instead of chestnut, and the thighs pale ash-grey instead of dark dusky grey.

Habitat. Western Venezuela (Merida) and Colombia to Panama.

The type, which is in the British Museum, was collected at Remedios, Antioquia, Colombia, by T. K. Salmon, Salvin-Godman collection.

***Aramides cajanea chiricote*.**

Rallus chiricote Vieill. N. Diet. d'Hist. Nat. xxviii. 1819, p. 551: Paraguay.

Gallinula ruficeps Spix, Av. Bras. ii. 1825, p. 74, tab. xevi.: "Provincia Rio de Janeiro."

Aramides cayanaea (nec Müll.) Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 57 (part, specimen *f*): Rio de Boraxudo.

Aramides chiricote Sharpe, Cat. B. Brit. Mus. xxiii. 1894,

p. 58 (part, specimens *e, f, h, i, k*): Bahía, Chapada, Matto Grosso, Rio Solimóens, E. Peru.

No. 2891. Charuplaya, Bolivia, 1300 metres. 18 May, 1901. Native name "Pucachaca." "Feet and iris red; bill greenish yellow" (*P. O. Simons*).

This southern form is distinguished from *A. c. cajanea* by its greyer upper surface, the paler underparts, and the rufous-brown patch on the hinder crown and nape. Its distribution, based on material in the British Museum, is Bahía (*Wucherer*), Itaparica Island, Bahía (*Nicholl*), Rio de Janeiro (*Joyner*), Paraguay (*Foster & Brabourne*), Pan do Azuear (*C. H. B. Grant*), Rio do Boraxudo, Brazil (*Natterer*), Chapada, Matto Grosso (*Smith & Robert*), Salta, Argentina (*Moreno*), Bolivia (*Simons*), Rio Solimóens (*Wallace*), and Yquitos, eastern Peru (*Whitely*).

Neocrex erythrops.

Porzana erythrops Selater, P. Z. S. 1867, p. 348, pl. xxi.: Lima; Tacz. Orn. Pér. iii. 1886, p. 325.

Neocrex erythrops Selater & Salvin, P. Z. S. 1868, p. 457.

No. 1251. Adult. Eten, N.W. Peru, 15 metres, 21 Sept. 1899. Native name "Patito."

This example agrees with the type which was collected in the neighbourhood of Lima, and is now in the British Museum, Salvin-Godman collection.

Gallinula galeata.

Crex galeata Licht. Verz. Doubl. 1823, p. 80: São Paulo.

Gallinula galeata Tacz. Orn. Pér. iii. 1886, p. 327: Lima, Junin, Callao; Sharpe, Cat. B. Brit. Mus. xxiii. 1894, p. 177.

Nos. 1249, ♀; 1250, 1251, ♂. Adult et imm. Eten, N.W. Peru, Sept. 1899. Native name "Gallonita."

Nos. 1330, 1331, ♀. Reque, Lambayeque, Peru, 35 metres, 6 Oct. 1899.

Nos. 147, 148, ♀. Trujillo, N.W. Peru, 24 Nov. 1912 "Iris brown; feet apple-green, vermilion at base; bill

vermilion, tip apple-green" (*Brabourne*). These specimens were collected and presented to the British Museum by the late Lord Brabourne.

Having examined a large series of this species in the British Museum from various localities in South America, I find that the individuals mentioned above are rather smaller in wing-measurement than those from the south and east. I may mention, however, that they are chiefly immature birds, which may account for it. I notice, too, that the birds from southern Peru, Lake Titicaca, and northern Chile have a larger average wing-measurement than those from other parts of the continent. These no doubt represent the form described by Allen under the name *C. garmani* (*cf.* Bull. Mus. Comp. Zoöl. Cambridge, Mass., iii. 1876, p. 357). It is unfortunate that in this fairly large series there are no specimens from São Paulo, the type-locality, with which comparisons could be made.

Fulica ardesiaca.

Fulica ardesiaca Tschudi, Arch. für Naturg. 1831, p. 389: Peru, on the banks of the rivers and in the Andean lakes; Salvad. & Festa, Boll. Mus. Torino, xv. 1900, No. 368, p. 40: Laguna di Kingora.

No. 388. Adult. Colta, Riobamba, Ecuador, 3100 metres, 9 Jan. 1899. Native name "Pata Prieta."

This example is similar to others in the British Museum from Peru and Ecuador.

Fulica gigantea.

Fulica gigantea Eyd. & Soul. Voy. 'Bonite,' 1841, p. 102, pl. 8: Peru; Tacx. Orn. Pér. iii. 1886, p. 329: Petit lac Ascacocha, dans les alos d'Huaihuai (*Tschudi*); environs du lac Junin (*Jelski*).

Nos. 3135, 3136. Adult. Potosi, Bolivia, 4500 metres, 30 Sept. 1901. Native name "Yaa-Pata." Simons states that this species was found in all Andean lakes. Feeding among the weeds and sand.